

CLAIMS

What is claimed is:

1. A caching system for use with a data distribution system, comprising:
a master cache for receiving content for distribution by the data distribution system to one or more users;
a gateway for receiving content that is distributed by the data distribution system from the master cache;
one or more local caches for storing the content received by the gateway destined for the one or more users; and
harvesting software coupled to the master cache and the gateway for processing information corresponding to probability distributions that the local caches satisfy requests from their respective users to predictively distribute the desired content to the respective users.
2. The system recited in Claim 1 wherein the harvesting software processes information contained in transmit hit/miss data and probability tables generated at the gateway.
3. The system recited in Claim 1 wherein the content comprises http objects.
4. The system recited in Claim 1 wherein the content comprises nntp objects.
5. The system recited in Claim 1 wherein the gateway comprises:
a pseudo client for receiving an entitlement message indicating that that content has arrived at the gateway, for enabling the gateway as a sibling cache for the local cache, for requesting content to be transferred from the sibling cache to the local cache, for verifying that content has been transferred to the local cache during the transfer process, for disabling the gateway as a sibling cache of the local cache at the completion of the process;
and wherein the local cache retrieves the content from the sibling cache until all content has been transferred.

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6. The method recited in Claim 5 wherein the Internet Protocol is used to communicate between the local cache and the sibling cache.

7. The method recited in Claim 5 wherein the Internet Cache Protocol is used to communicate between the local cache and the sibling cache.

8. The method recited in Claim 1 wherein the harvest analysis software: processes statistics derived from the master cache and the local caches to produces a list of content to add to the master cache and a list of content to delete from the master cache;

5 forming a pseudo client to retrieve and verify 66 the content to be added to the master cache; and

transmitting the verified content from the master cache to the local caches.

9. A method for transferring content distributed by a data distribution system to a gateway into a local cache, comprising the steps of:

creating a pseudo client on the gateway;

5 receiving an interrupt at the pseudo client indicating that that content has arrived at the gateway;

enabling the gateway as a sibling cache for the local cache;

requesting content to be transferred from the sibling cache to the local cache;

10 verifying that content has been transferred to the local cache during the transfer process;

disabling the gateway as a sibling cache of the local cache at the completion of the process;

causing the local cache to retrieve the content from the sibling cache until all content has been transferred.

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10. A method for building a master cache used to transfer content by way of a data distribution system to a local cache, comprising the steps of:

5 processing statistics derived from the master cache and the local cache to produces a list of content to add to the master cache and a list of content to delete from the master cache;

forming a pseudo client to retrieve and verify the content to be added to the master cache; and

transmitting the verified content from the master cache to the local cache.

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11. The method recited in Claim ¹³10 wherein the step of processing statistics comprises the step of processing information corresponding to probability distributions that the local caches satisfy requests from their respective users to predictively distribute the desired content to the respective users.

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12. The method recited in Claim ¹³10 wherein the step of processing statistics comprises the step of processing information contained in transmit hit/miss data and probability tables.

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